



### TRANSMITTAL SHEET

TO:	FROM:
Byron Clark	Devard Hanna
COMPANY:	DATE:
Department of Veterans Affairs Medical Center	9/4/14
PHONE NUMBER:	MED- ARCH PROJCT NUMBER
405-456-3870	635-11-901
RE: CONSTRUCT PARKING GARAGE VA256-14-B-1164	NO. OF PAGES INCLUDING COVER: 06

<input type="checkbox"/> TRACINGS/SPECIFICATIONS	<input checked="" type="checkbox"/> DRAWINGS/SUBMITTALS
<input type="checkbox"/> CONSTRUCTION DOCUMENTS	<input type="checkbox"/> ELECTRONIC MEDIA/FAX
<input type="checkbox"/> FIELD OBSERVATION REVIEW	<input type="checkbox"/> OTHER
<input type="checkbox"/> AS REQUESTED	<input checked="" type="checkbox"/> FOR DISTRIBUTION
<input type="checkbox"/> FOR REVISION/RESUBMISSION	<input type="checkbox"/> RETURNING TO YOU
<input type="checkbox"/> FOR REVIEW AND SIGNATURE	<input type="checkbox"/> FOR YOUR USE
<input type="checkbox"/> BY E-MAIL	<input checked="" type="checkbox"/> ELECTRONIC DATA TRANSFER/FAX
<input type="checkbox"/> BY FED-EX	<input type="checkbox"/> BY COURIER
<input type="checkbox"/> UNDER SEPARATE COVER	<input type="checkbox"/> DIRECT PERSONAL DELIVERY

QUANTITY	DESCRIPTION
(1) SET	SPECIFICATION SECTION 08 11 13 HOLLOW METAL DOORS AND FRAMES

NOTES/COMMENTS:

- Specification is attached.

**SECTION 08 11 13**  
**HOLLOW METAL DOORS AND FRAMES**

**PART 1 - GENERAL**

**1.1 DESCRIPTION**

- A. This section specifies steel doors, steel frames and related components.
- B. Terms relating to steel doors and frames as defined in ANSI A123.1 and as specified.

**1.2 RELATED WORK**

- A. Frames fabricated of structural steel: Section 05 50 00, METAL FABRICATIONS.
- B. Door Hardware: Section 08 71 00, DOOR HARDWARE.

**1.3 SUBMITTALS**

- A. Submit in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.
- B. Manufacturers Literature and Data:
  - 1. Fire rated doors and frames, showing conformance with NFPA 80 and Underwriters Laboratory, Inc., or Intertek Testing Services or Factory Mutual fire rating requirements

**1.5 SHIPMENT**

- A. Prior to shipment label each door and frame to show location, size, door swing and other pertinent information.
- B. Fasten temporary steel spreaders across the bottom of each door frame.

**1.6 STORAGE AND HANDLING**

- A. Store doors and frames at the site under cover.
- B. Protect from rust and damage during storage and erection until completion.

**1.7 APPLICABLE PUBLICATIONS**

- A. Publications listed below form a part of this specification to the extent referenced. Publications are referenced in the text by the basic designation only.
- B. Federal Specifications (Fed. Spec.):
  - L-S-125B..... Screening, Insect, Nonmetallic

## C. Door and Hardware Institute (DHI):

A115 Series Steel Door and Frame Preparation for Hardware, Series  
A115.1 through A115.17 (Dates Vary)

## D. Steel Door Institute (SDI):

113-01 Thermal Transmittance of Steel Door and Frame Assemblies  
128-1997 Acoustical Performance for Steel Door and Frame Assemblies  
A250.8-03 Standard Steel Doors and Frames

## E. American Society for Testing and Materials (ASTM):

A167-99(R2004)..... Stainless and Heat-Resisting Chromium-Nickel  
Steel Plate, Sheet, and Strip  
A568/568-M-07..... Steel, Sheet, Carbon, and High-Strength, Low-  
alloy, Hot-Rolled and Cold-Rolled  
A1008-08..... Steel, sheet, Cold-Rolled, Carbon, Structural,  
High Strength Low Alloy and High Strength Low  
Alloy with Improved Formability  
E90-04..... Laboratory Measurement of Airborne Sound  
Transmission Loss of Building Partitions

F. The National Association Architectural Metal Manufacturers (NAAMM):  
Metal Finishes Manual (1988 Edition)

## G. National Fire Protection Association (NFPA):

80-09..... Fire Doors and Fire Windows

## H. Underwriters Laboratories, Inc. (UL):

Fire Resistance Directory

~~I. Factory Mutual System (FM):~~

~~Approval Guide~~

**PART 2 - PRODUCTS****2.1 MATERIALS**

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B. Sheet Steel: ASTM A1008, cold-rolled for panels (face sheets) of doors.

C. Anchors, Fastenings and Accessories: Fastenings anchors, clips  
connecting members and sleeves from zinc coated steel.

ⓈD. Prime Paint: Paint that meets or exceeds the requirements of  
A250.8.

## 2.2 FABRICATION GENERAL

### A. GENERAL:

1. follow sdi a250.8 for fabrication of standard steel doors, except as specified otherwise. doors to receive hardware specified in section 08 71 00, door hardware. tolerances as per sdi a250.8. thickness, 44 mm (1-3/4 inches), unless otherwise shown.
2. close top edge of exterior doors flush and seal to prevent water intrusion.
3. when vertical steel stiffeners are used for core construction, fill spaces between stiffeners with mineral fiber insulation.
- b. standard duty doors: sdi a250.8, level 1, model 2 of size and design shown. use for interior locations only. do not use for stairwell doors, security doors and detention doors.

D. Extra Heavy Duty Doors: SDI A250.8, Level 3, Model 2 of size and design shown. Core construction Types d or f, for interior doors, and Types b, c, e, or f, for exterior doors. Use for detention doors, stairwell doors and security doors. See additional requirements for detention doors, under paragraph "Custom Hollow Metal Doors.

### E. Smoke Doors:

1. Close top and vertical edges flush.
2. Provide seamless vertical edges.
3. Apply Steel astragal to the meeting stile at the active leaf of pair of doors or double egress doors.
4. Provide clearance at head, jamb and sill as specified in NFPA 80.

### F. Fire Rated Doors (Labeled):

1. Conform to NFPA 80 when tested by Underwriters Laboratories, Inc., Inchcape Testing Services, or Factory Mutual for the class of door or door opening shown.
2. Fire rated labels of metal, with raised or incised markings of approving laboratory shall be permanently attached to doors.
3. Close top and vertical edges of doors flush. Vertical edges shall be seamless. Apply steel astragal to the meeting stile of the active leaf of pairs of fire rated doors, except where vertical rod exit devices are specified for both leaves swinging in the same direction.
4. Construct fire rated doors in stairwell enclosures for maximum transmitted temperature rise of 230 °C (450 °F) above ambient temperature at end of 30 minutes of fire exposure when tested in accordance with ASTM E152.

**METAL FRAMES**

## A. General:

1. SDI A250.8, 1.3 mm (0.053 inch) thick sheet steel, types and styles as shown or scheduled.
2. Frames for exterior doors: Fabricate from 1.7 mm (0.067 inch) thick galvanized steel conforming to ASTM A525.
3. Frames for labeled fire rated doors.
  - a. Comply with NFPA 80. Test by Underwriters Laboratories, or Factory Mutual.
  - b. Fire rated labels of approving laboratory permanently attached to frames as evidence of conformance with these requirements. Provide labels of metal or engraved stamp, with raised or incised markings.

~~74.~~ Knocked-down frames are not acceptable.

## B. Reinforcement and Covers:

1. SDI A250.8 for, minimum thickness of steel reinforcement welded to back of frames.
2. Provide mortar guards securely fastened to back of hardware reinforcements except on lead-lined frames.

## C. Terminated Stops: SDI A250.8.

## D. Frame Anchors:

## 1. Floor anchors:

- a. At bottom of jamb use 1.3 mm (0.053 inch) thick steel clip angles welded to jamb and drilled to receive two 6 mm (1/4 inch) floor bolts. Use 50 mm x 50 mm (2 inch by 2 inch) 9 mm by (3/8 inch) clip angle for lead lined frames, drilled for 9 mm (3/8 inch) floor bolts.

## 2. Jamb anchors:

- a. Locate anchors on jambs near top and bottom of each frame, and at intermediate points not over 600 mm (24 inches) apart, except for fire rated frames space anchors as required by labeling authority.
- b. Form jamb anchors of not less than 1 mm (0.042 inch) thick steel unless otherwise specified.

- c. Anchors set in masonry: Use adjustable anchors designed for friction fit against the frame and for extension into the masonry not less than 250 mm (10 inches). Use one of following type:
  - 1) Wire loop type of 5 mm (3/16 inch) diameter wire.
  - 2) T-shape or strap and stirrup type of corrugated or perforated sheet steel.

## **2.6 SHOP PAINTING**

SDI A250.8.

## **PART 3 - EXECUTION**

### **3.1 INSTALLATION**

- A. Plumb, align and brace frames securely until permanent anchors are set.
  - 1. Use triangular bracing near each corner on both sides of frames with temporary wood spreaders at midpoint.
  - 2. Use wood spreaders at bottom of frame if the shipping spreader is removed.
  - 3. Protect frame from accidental abuse.
  - 4. Where construction will permit concealment, leave the shipping spreaders in place after installation, otherwise remove the spreaders after the frames are set and anchored.
  - 5. Remove wood spreaders and braces only after the walls are built and jamb anchors are secured.
- B. Floor Anchors:
  - 1. Anchor the bottom of door frames to floor with two 6 mm (1/4 inch) diameter expansion boltsC. Jamb Anchors:
    - 1. Anchors in masonry walls: Embed anchors in mortar. Fill space between frame and masonry wall with grout or mortar as walls are built.
    - 2. Coat frame back with a bituminous coating prior to lining of grout filling in masonry walls.
    - 3.
- D. Install anchors for labeled fire rated doors to provide rating as required.

### **3.2 INSTALLATION OF DOORS AND APPLICATION OF HARDWARE**

Install frames doors and hardware as specified in Sections // Section 08 11 13, HOLLOW METAL DOORS AND FRAMES .

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